

APPLICANT(S): MERON, Gavriel et al.
SERIAL NO.: 10/046,541
FILED: January 16, 2002
Page 4

AMENDMENTS TO THE CLAIMS

Please add or amend the claims to read as follows, and cancel without prejudice or disclaimer to resubmission in a divisional or continuation application claims indicated as cancelled:

1-50. (Cancelled)

51. **(Currently Amended)** An in vivo device having a front end and a rear end, said device comprising:

a plurality of optical windows, at least one optical window at the front end and at least one optical window at the rear end, each window covering at least a plurality of illumination sources and an imager, said optical windows facing different directions;

a transmitter to transmit signals from the imagers to a receiver external to a patient's body, wherein said signals are transferred serially by said transmitter over a single channel; and

an internal power source.

52. (Cancelled)

53. (Previously Presented) The device according to claim 51 wherein each window is dome shaped.

54. **(Currently Amended)** The device according to claim 51 comprising a lens positioned behind the each of said optical windows.

55. **(Currently Amended)** The device according to claim 51 comprising a lens positioned between [[an]] each of said imagers and [[an]] said optical windows.

56. (Cancelled)

57. (Cancelled)

58. (Cancelled)

59. (Cancelled)

60. (Previously Presented) The device according to claim 51 wherein the device is capsule shaped.

61. (Cancelled)

62. (Cancelled)

63. **(Currently Amended)** A method for in vivo imaging of a body lumen, using an in-vivo imaging device, the method comprising the steps of:

illuminating in vivo sites from behind at least two optical windows;

obtaining images of the in vivo sites from imagers located behind each of the at least two optical windows, there being covered by each optical window at least an imager and ~~an~~ a plurality of illumination sources; and

serially transmitting ~~[[the]]~~ said images ~~[[the]]~~ to a receiver external to the body lumen over a radio channel.

64. (Previously Presented) The method according to claim 63 comprising the step of illuminating the in vivo sites from different directions.

65. (Previously Presented) The method according to claim 63 comprising obtaining images of the in vivo sites from at least two imagers.

66. **(Currently Amended)** The method according to claim 63 comprising obtaining images from a front and from a rear of ~~[[an]]~~ said in vivo imaging device.

67. **(Cancelled)**

68-71. (Cancelled)